

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): An antimicrobial organic polymer material comprising an organic polymer having a polymer side chain containing one or more polymerized N-alkyl-N-vinylalkylamide monomer units bonded to the backbone of the organic polymer and triiodide ion, wherein the triiodide ion is carried on said organic polymer.

Claim 2 (Previously Presented): The antimicrobial organic polymer material of Claim 1 wherein the polymer side chain has been introduced onto the backbone of the organic polymer by radiation-induced graft polymerization.

Claim 3 (Previously Presented): The antimicrobial organic polymer material of Claim 1 wherein the side chain comprises one or more polymerized monomers selected from the group consisting of N-vinylpyrrolidone, 1-vinyl-2-piperidone, N-vinyl-N-methylacetamide, N-vinyl-N-ethylacetamide, N-vinyl-N-methyl propylamide, N-vinyl-N-ethyl propylamide and derivatives thereof.

Claim 4 (Previously Presented): The antimicrobial organic polymer material of Claim 1 wherein the organic polymer comprises a polyolefin-based organic polymer.

Claim 5 (Previously Presented): The antimicrobial organic polymer material of Claim 1 in the form selected from the group consisting of a fiber, a woven/nonwoven fabric which is a fiber assembly, processed products of the woven/nonwoven fabric, fiber chips, beads, nets, films, plate members and bulk members.

Claim 6 (Previously Presented): An antimicrobial filter comprising the antimicrobial organic polymer material of Claim 1.

Claim 7 (Previously Presented): A process for preparing an antimicrobial organic polymer material, comprising
introducing a polymer side chain containing one or more polymerized N-alkyl-N-vinylalkylamide monomer units onto the backbone of an organic polymer to form an organic polymer material; and
loading triiodide ion on the organic polymer material.

Claim 8 (Previously Presented): The process of Claim 7 wherein the polymer side chain is formed by graft-polymerizing a polymerizable monomer containing an N-alkyl-N-vinylalkylamide onto the backbone of a an organic polymer by radiation-induced graft polymerization.

Claim 9 (Previously Presented): The antimicrobial organic polymer material of Claim 1, wherein the organic polymer is a polyethylene polymer.

Claim 10 (Previously Presented): The antimicrobial organic polymer material of Claim 1, wherein the side chain comprises one or more polymerized N-vinyl pyrrolidone monomers.

Claim 11 (Previously Presented): The process as claimed in Claim 7, wherein the triiodide ion is loaded on the organic polymer material by immersing the organic polymer

material in at least one of an aqueous iodine/potassium iodide solution or an aqueous iodine/hydrogen iodide solution.

Claim 12 (Previously Presented): The process as claimed in Claim 7, wherein the triiodide ion is loaded onto the organic polymer material by passing a solution of at least one of aqueous iodine/potassium iodide or aqueous iodine/hydrogen iodide through a filter made of the organic polymer material.

Claim 13 (Previously Presented): The process of Claim 7, wherein the triiodide ion is loaded on the organic polymer material by contacting the polymer material with iodine vapor.

Claim 14 (Previously Presented): The process of Claim 7, wherein the triiodide ion is loaded on the organic polymer material by immersing the polymer material in a solution of iodine dissolved in an organic solvent.

Claim 15 (Previously Presented): The process as claimed in Claim 14, wherein the organic solvent is at least one selected from the group consisting of dichloromethane, chloroform, and methanol.

Claim 16 (Previously Presented): The process as claimed in Claim 14, further comprising:

adding hydroiodic acid to the solution.

Claim 17 (Previously Presented): The antimicrobial organic polymer material of Claim 1, wherein the triiodide ion is present in an amount of from 1 to 30% per unit weight of the organic polymer.

Claim 18 (New): An antimicrobial organic polymer material having graft chains on the backbone of a polymer substrate, the graft chains being obtained by graft polymerizing N-alkyl-N-vinylalkylamide to the polymer substrate, wherein triiodide ion is carried on said organic polymer material.

Claim 19 (New): The antimicrobial organic polymer material of Claim 18 wherein the graft chains are obtained by radiation-induced graft polymerizing N-alkyl-N-vinylalkylamide to the polymer substrate.

Claim 20 (New): The antimicrobial organic polymer material of Claim 18 wherein the N-alkyl-N-vinylalkylamide is at least one selected from the group consisting of N-vinylpyrrolidone, 1-vinyl-2-piperidone, N-vinyl-N-methylacetamide, N-vinyl-N-ethylacetamide, N-vinyl-N-methyl propylamide, N-vinyl-N-ethyl propylamide and derivatives thereof.

Claim 21 (New): The antimicrobial organic polymer material of Claim 18 wherein the polymer substrate is a polyolefin-based organic polymer.

Claim 22 (New): The antimicrobial organic polymer material of Claim 18 in the form selected from the group consisting of a fiber, a woven/nonwoven fabric which is a fiber

assembly and processed products thereof, fiber chips, beads, nets, films, plate members and bulk members.

Claim 23 (New): An antimicrobial filter comprising the antimicrobial organic polymer material of Claim 18.

Claim 24 (New): A process for preparing an antimicrobial organic polymer material, comprising graft polymerizing N-alkyl- N-vinylalkylamide to a polymer substrate and loading triiodide ion on the resulting polymer material.

Claim 25 (New): The process of Claim 24 wherein the graft polymerization is radiation-induced graft of polymerization.

BASIS FOR THE AMENDMENT

Claims 1-25 are active in the present application. Claims 18-25 are new claims. Support for the new claims is found in the original claims and in the specification in the paragraph bridging pages 4 and 5. No new matter is added. Claims 1-25 are active in the present application. Claims 18-25 are new claims. Support for the new claims is found in the original claims and in the specification in the paragraph bridging pages 4 and 5. No new matter is added.